



Minimum Evaporating Temp. With:

- 20 K Suction Superheat
 ■ 20 °C Suction Gas Return
 ■ 0 °C Suction Gas Return
- Maximum Evaporating Temperature

Suction Return Temperature 20.0°C

Liquid Subcooling 0.0K

Evaporating Temperature, °C

Additional restrictions, please see application guidelines

50 Hz

4MHD-25X

R513A

Cond °C	Cooling Capacity, kW												
	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0	12.5	15.0	20.0	25.0
16.0	17.30												
20.0	16.50	20.80											
25.0	15.50	19.60	24.60	30.70									
30.0	14.40	18.40	23.20	29.00	35.80	43.80							
35.0	13.30	17.15	21.70	27.20	33.70	41.30	50.00	53.80	59.90	65.40			
40.0	12.20	15.85	20.20	25.40	31.50	38.60	46.80	50.40	56.20	61.40	66.90		
45.0	11.05	14.50	18.65	23.50	29.30	35.90	43.60	47.00	52.40	57.20	62.40		
50.0	9.92	13.20	17.05	21.60	26.90	33.10	40.30	43.40	48.40	52.90	57.70		
55.0		11.85	15.45	19.65	24.60	30.30	36.90	39.80	44.40	48.50	53.00		
60.0		10.50	13.80	17.65	22.20	27.40	33.40	36.00	40.30	44.00	48.10		
65.0			12.15	15.65	19.70	24.40	29.90	32.20	36.10	39.50	43.10		
70.0			10.50	13.60	17.25	21.40	26.30	28.40	31.80	34.80	38.10		
75.0				11.60	14.75	18.40	22.60	24.50	27.50	30.10	33.00		
80.0				9.53	12.25	15.35	19.00	20.60	23.10	25.40	27.80		
85.0					9.73	12.30	15.30	16.60	18.70	20.60	22.60		

Cond °C	Power, kW												
	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0	12.5	15.0	20.0	25.0
16.0	5.69												
20.0	5.94	6.44											
25.0	6.21	6.82	7.33	7.70									
30.0	6.42	7.14	7.77	8.29	8.66	8.87							
35.0	6.58	7.40	8.16	8.81	9.34	9.72	9.92	9.94	9.92	9.83			
40.0	6.69	7.62	8.48	9.27	9.95	10.50	10.85	11.00	11.05	11.10	11.05		
45.0	6.75	7.77	8.76	9.67	10.50	11.20	11.75	11.95	12.15	12.25	12.35		
50.0	6.76	7.88	8.97	10.00	11.00	11.85	12.60	12.85	13.15	13.40	13.55		
55.0		7.93	9.13	10.30	11.40	12.40	13.35	13.65	14.10	14.40	14.70		
60.0		7.92	9.23	10.50	11.75	12.95	14.00	14.40	14.95	15.40	15.75		
65.0			9.28	10.70	12.05	13.40	14.65	15.10	15.75	16.25	16.75		
70.0			9.27	10.80	12.30	13.75	15.15	15.70	16.50	17.10	17.65		
75.0				10.85	12.50	14.10	15.65	16.25	17.15	17.85	18.50		
80.0				10.85	12.60	14.35	16.05	16.75	17.75	18.50	19.30		
85.0					12.65	14.55	16.40	17.15	18.25	19.15	20.00		

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50 Hz

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Cond °C	Current at 400 V, A												
	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0	12.5	15.0	20.0	25.0
16.0	17.89												
20.0	18.08	18.49											
25.0	18.30	18.79	19.25	19.61									
30.0	18.49	19.07	19.64	20.15	20.54	20.77							
35.0	18.64	19.31	20.00	20.65	21.21	21.63	21.86	21.89	21.86	21.75			
40.0	18.75	19.52	20.32	21.11	21.84	22.45	22.91	23.03	23.15	23.17	23.12		
45.0	18.82	19.68	20.59	21.53	22.43	23.24	23.91	24.13	24.40	24.56	24.65		
50.0	18.84	19.79	20.82	21.90	22.97	23.97	24.87	25.19	25.61	25.90	26.13		
55.0		19.84	21.00	22.22	23.46	24.66	25.78	26.19	26.76	27.19	27.56		
60.0		19.84	21.11	22.48	23.89	25.29	26.63	27.14	27.86	28.42	28.94		
65.0			21.16	22.68	24.26	25.86	27.42	28.03	28.91	29.60	30.26		
70.0			21.15	22.81	24.56	26.36	28.15	28.85	29.88	30.71	31.51		
75.0				22.86	24.79	26.79	28.80	29.61	30.79	31.76	32.69		
80.0				22.84	24.94	27.14	29.39	30.28	31.62	32.72	33.81		
85.0					25.02	27.42	29.89	30.88	32.38	33.61	34.84		

Cond °C	Suction Mass Flow, g/s												
	-25.0	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0	12.5	15.0	20.0	25.0
16.0	96.20												
20.0	94.70	119.50											
25.0	92.60	117.50	148.00	185.00									
30.0	90.10	115.00	146.00	183.00	227.00	278.00							
35.0	87.30	112.50	143.50	180.00	224.00	275.00	336.00	362.00	405.00	444.00			
40.0	84.10	109.50	140.00	177.00	220.00	272.00	331.00	358.00	401.00	439.00	481.00		
45.0	80.60	106.00	137.00	173.50	216.00	267.00	326.00	353.00	395.00	434.00	475.00		
50.0	76.80	102.50	133.00	169.00	212.00	262.00	321.00	347.00	389.00	427.00	468.00		
55.0		98.10	128.50	164.50	207.00	256.00	314.00	340.00	382.00	420.00	460.00		
60.0		93.50	123.50	159.00	201.00	250.00	307.00	332.00	374.00	411.00	451.00		
65.0			118.00	153.00	194.00	242.00	299.00	324.00	364.00	401.00	441.00		
70.0			112.00	146.50	186.50	234.00	289.00	314.00	354.00	391.00	430.00		
75.0				139.00	178.00	225.00	279.00	303.00	343.00	379.00	418.00		
80.0				130.50	169.00	215.00	268.00	292.00	332.00	367.00	406.00		
85.0					160.00	205.00	259.00	283.00	322.00	358.00	398.00		

Additional restrictions, please see application guidelines

COMPRESSOR MECHANICAL AND PHYSICAL DATA

Number of cylinders	4
Displacement @ 50 Hz, m ³ /h	71.4
Bore/Stroke, mm	68.3/56.0
Length/Width, mm	657/501
Height, mm	452
Net Weight, kg	193
Suction, inch	2 1/8
Discharge, inch	1 1/8
Oil Quantity, l	3.3
Oil type (original charge)	POE RL32-3MAF
Oil type (approved oils)	POE RL32-3MAF, POE MOBIL EAL Arctic 22 CC
Base mounting (hole dia), mm	381 x 305 (18)
Sound Pressure @ 1m (MT), dBA	69
Sound Power (MT), dBA	80
Sound Power with Sound Shell (MT), dBA	66
Sound Conditions (MT, Temperatures: Evap./Cond./Suction at freq./speed)	-10 / 45 / 20 °C at 50 Hz
High Side PS gauge, bar	32.5
Low Side PS gauge, bar	22.5
Digital Modulation	50-100%
Refrigerant's GWP	631
Refrigerant's classification	A1

COMPRESSOR ELECTRICAL DATA (380-420 V / 3~ / 50 Hz)

Maximum Operating Current, A	41.6
Locked Rotor Current, A	199
Default Enclosure Class	IP 54 (IEC 34)

ACCESSORIES INCLUDED

Oil Pressure Switch (-P)	OPS2 Sensor
CoreSense Protection (-P)	Motor protection
Mounting Parts	Spring
Copeland Compressor Electronic (-N)	Oil pressure, motor and discharge line temperature protection; advanced diagnostics features and power measurement

Additional restrictions, please see application guidelines

ACCESSORIES OPTIONAL

Check Valve	For unloaded start operation
Adapter Kit	For Parallel Operation
Digital Driver	EC3-D23
Crankcase Heater	100 W Internal
Sound Attenuation	Sound Shell
Mounting Parts	Rubber
Additional Cooling	70 W Vertical Air Flow Fan
Oil Pressure Switch	OPS2 Electronic Switch
Digital Modulation	50-100 %
Copeland Compressor Electronic module	Modbus extension module

MOTOR OPTIONS

Motor Code	Power Supply	Nominal Voltage, V	Start Connection	DOL Connection	Amps Factor
AWM	380-420 V / 3~ / 50 Hz	400	YY/Y	Y	1.00
EWL	220-240 V / 3~ / 50 Hz	230	Y/DELTA	DELTA	1.73
EWL	380-420 V / 3~ / 50 Hz	400		Y	1.00
EWM	380-420 V / 3~ / 50 Hz	400	Y/DELTA	DELTA	1.00
AWR	220-240 V / 3~ / 50 Hz	230	YY/Y	Y	1.73
AWY	500-550 V / 3~ / 50 Hz	525	YY/Y	Y	0.76
EWK	220-240 V / 3~ / 60 Hz	230	Y/DELTA	DELTA	2.10
EWK	380-420 V / 3~ / 60 Hz	380		Y	1.20
EWD	440-480 V / 3~ / 60 Hz	460	Y/DELTA	DELTA	1.00
AWC	208-230 V / 3~ / 60 Hz	230	YY/Y	Y	2.19
AWX	380 V / 3~ / 60 Hz	380	YY/Y	Y	1.20
AWD	440-480 V / 3~ / 60 Hz	460	YY/Y	Y	1.00

Additional restrictions, please see application guidelines